

REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This amendment is in response to the Office Action dated July 16, 2003.

By the present amendment, the specification has been amended as suggested by the Examiner to particularly define the range for the gap between the plate electrode defined by the present claims. With regard to this, it is noted that this range has been defined as 8 mm to 50 mm. Support for this range can be found on page 64 between lines 14 and 25. Specifically, as noted beginning on page 64, line 14, in order to ensure effective removal of fluorine or oxygen and to avoid certain ill effects such as the attaching of deposits on surrounding walls, the distance between the electrodes "is set to a value shorter than 50 mm." Page 64 goes on to note, however, that, in order to obtain a stable discharge, the distance between the electrodes is required to be 2 to 4 times or larger than the mean-free-path at the maximum gas pressure. This distance is thus 4 mm to 8 mm, as noted on page 64, lines 27 to 25. Therefore, contrary to the statements made in the 35 U.S.C. § 112, first paragraph, rejection set forth in the Office Action, it is respectfully submitted that page 64, lines 22 to 25 clearly provide support for a distance between the electrodes of less than 10 mm (specifically, as small as 4 mm). Therefore, it is submitted that clear support exists for the claim range of 8 mm to 50 mm, and reconsideration and removal of the 35 U.S.C. § 112, first paragraph, rejection regarding this is respectfully requested.

It is noted that, by the present amendment, the other points of rejections set forth under 35 U.S.C. § 112, first and second paragraph have been obviated. Concerning this, Applicants note that they do not concur with these rejections, but

have chosen to cancel the claim language in question at the present time to emphasize other features of the invention. In any case, removal of the 35 U.S.C. § 112, first and second paragraph rejection is requested in light of the new claims submitted herewith.

Reconsideration and allowance of newly submitted claims 37 to 45 over the cited prior art is also respectfully requested. New independent claims 37, 38, and 44 all define a combination of features in a plasma processing apparatus including a gas introducing means capable of introducing a fluorine-containing etching gas into the vacuum processing chamber, an electrode cover comprising a material containing Si or C disposed on one of the pair of electrodes (or, in the case of claim 44, means for removing fluorine) together with the feature of the gap between the plate electrodes being 8 mm to 50 mm. It is respectfully submitted that none of the cited prior art to Sakamoto (USP 5698062), Iimuro (JP 06-333850), Arai (JP 06-338476), Ishizuka (USP 5476182), Lenz (USP 5534751), Hill (USP 5744049), or Ishii (USP 5529657) teach or suggest this combination of features. The use of an electrode cover containing silicon or carbon for purposes of removing fluorine is discussed, for example, on page 28, line 23 and page 33, line 1 et seq. As noted above, page 64, lines 8-25 discuss the advantageous features of providing the gap between the plate electrodes between 8 mm to 50 mm. In particular, this serves to avoid problems of attaching of deposits on the surrounding walls and the discharge confining ring while effectively allowing the upper electrode cover 30 to perform the function of removing fluorine or oxygen. At the same time, it permits obtaining a stable discharge. As such, the combination of the gap between the plate electrodes being set to 8 mm to 50 mm and the electrode cover comprising a material containing Si or C for removing of fluorine operate together to provide an improved

plasma processing apparatus. None of the cited references teach or suggest this particular combination of the setting of the specific gap of the plate electrodes and the use of the electrode cover containing the fluorine removing materials to achieve such an improved apparatus. As such, reconsideration and allowance of the newly submitted claims 37 through 45 over the various cited references is respectfully requested.

If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account No. 01-2135 (Docket No. 520.35237VX3), and please credit any excess fees to such Deposit Account.

Respectfully submitted,

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